

# Nutrition Feeds Successful Learning



***“All children deserve the opportunity to grow up in schools and communities that support them in making healthy choices.”***

Nutrition affects children’s ability to learn. This link has been clearly supported through controlled research studies. Inadequate nutrition is a major cause of impaired cognitive development and is associated with increased educational failure and behavioral problems.

## **Who is at risk for inadequate nutrition?**

Children of all socioeconomic levels are at risk here. Children living in poverty often exist in a condition of moderate undernutrition. However, even children not living in poverty are turning up with nutritional deficiencies due to diets that are high in fat, sugar, and sodium and low in many essential nutrients. Not only are these children not nourished to learn at their best, they are at risk for long-term health problems such as obesity, heart disease and diabetes.

Let’s look at the results of some specific research studies linking nutrition with learning and behavior in school children:

## **Hunger and Learning**

- One study investigating the effects of hunger and poor nutrition on cognitive ability found that the fourth grade students who had the least protein intake in their diets had the lowest achievement scores.
- A large scale study (11 states) showed that children from families classified as “hungry” were two to three times more likely to have psychosocial and academic problems than children in low income families classified as “not hungry”.
- Similarly, another study reported similar findings in that “children from families that report multiple experiences of food insufficiency or hunger are more likely to show behavioral, emotional, and academic problems on a standardized measure of psychosocial dysfunction than children from the same low-income communities whose families do not report experiences of hunger”.

### **Importance of Breakfast**

- A study that took place within the Philadelphia and Baltimore School Districts found that participation in the school breakfast programs was associated with improved psychosocial and academic functioning among students.
- Numerous studies have shown that:
  - Kids who eat breakfast seem to have an easier time learning as demonstrated through:
    - Ability to concentrate
    - Fewer errors
    - Higher test scores
    - More creativity
    - Faster work
  - Kids who eat breakfast are more likely to be in school as demonstrated by:
    - Fewer absences
    - Less tardiness
    - Less time spent in school nurse’s office

- Kids who eat breakfast behave better in school as demonstrated by:
  - Fewer fights
  - Greater cooperation
  - Fewer trips to the principal's office
  - Fewer conflicts with classmates

## **Iron Deficiency is a Problem**

- A very recent study in the US attempted to shed light on the relationship between iron status and cognitive achievement in school-aged children and adolescents. It was found that the school-aged children and adolescents who were iron deficient demonstrated lower standardized math scores when compared to their iron sufficient peers.
- A British study of girls between the ages of 11 and 18 found a significant correlation between low hemoglobin levels (an indicator of insufficient dietary iron) and poor cognitive function. A most surprising finding in this study was that only a very small drop in iron levels was correlated with a decline in IQ. Among this study population, dieting was considered to be a major contributing factor to the low iron levels of the girls.